

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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This is UNEVALUATED

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

1. The Voroshilov Electrical Engineering Factory is located in the northeastern part of Sofia, in the industrial quarter of Zakharna Fabrika. The main building consists of a 5-story central building and two 3-story wings adjoining the two ends of the central building at right angles. Near the main building are three ground-floor buildings. One is used as a foundry (Leyarski Tsekh); the second is used as a forge; and the third is used as a joiners' shop (Duvodelski Tsekh) for the manufacture of radio cabinets. A separate ground-floor structure is used to house the personnel of the DS (Durzhavna Sigurnost; Security Police), wearing civilian clothes, responsible for the internal security of the works.
2. Underneath the main building are a basement and a sub-basement. The sub-basement is used for the storage of heavy raw materials and of oxygen containers for welding (160 atmospheres), and as a dump for a large number of worn-out machines. These machines are of Soviet, Czech manufacture. Containers of chemicals needed by the factory are also stored here. The basement is used for the storage of finished products as well as of spare parts produced in the plant.
3. The factory covers a plot approximately 350-400 x 400-500 meters, fenced in on three sides. The northern and eastern sides are protected by three barbed wire fences; the southern side has only one barbed wire fence. The western side is formed by the front of the main building. The barbed wire fence is about two meters high. There is a guardpost at each of the four corners of the compound. These posts are manned by armed police guards, each carrying a Soviet-made Shpagin automatic rifle. In addition police guards armed with the same type rifles patrol the compound along the fence. At night they are accompanied by three or four watchdogs. Early in 1952, after a group of alleged saboteurs was seized, the guard of the works was reinforced. The factory was then declared a military plant.

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4. The Assembly Department (Purvi Montazhni Tsekh) occupies the second floor of the central building. Seventy per cent of its 200 to 250 workers are women employed in the assembly of radios, amplifiers, and loudspeakers. The work is mainly manual and is done on the conveyor belt system with two belts running through the length of the room. The mechanical equipment in this department includes:
- a. Five or six magnetizing machines for loudspeaker magnet; these machines were imported in 1953, at the beginning of production of loudspeakers, from the USSR; [redacted] they originated in Leningrad; [redacted]
 - b. About 20 wire-coiling machines for the production of transformers ("Ausgang-Transformatoren," Zwischen Transformatoren); these small machines are on tables; [redacted] bought in 1949;
 - c. One or two electric spot welding machines of Bulgarian make, from the Vasil Kolarov works;
 - d. Four "automats," one Soviet and three Hungarian Orion make, for the production of condensers of the blocking type (not electrolytic); prior to 1954 ready-made blocking condensers were imported from abroad.
5. The Department for Radio Spare Parts Production (Tsekh Za Proizvodstvo Radio-Chasti) occupies the third floor of the central building. All spare part components produced in the Machine Department are assembled here, as required, for radios, amplifiers, loudspeakers, telephones, and telephone exchanges, except blocking condensers which are produced in the Assembly Department, and tubes which are imported from the USSR, Czechoslovakia, Hungary, and East Germany. In addition the following articles are produced in this department:
- a. Rotating condensers for radios;
 - b. Relay parts for the use of automatic telephone exchanges;
 - c. Small 5-watt dynamos for military field telephones;
 - d. Membranes and microphones for telephone sets;
 - e. Chemical rheostats and rheostats made of wires from an alloy of various metals, for radio and telephone sets;
 - f. Telephone dials;
 - g. Commutators for radio and telephone sets;
 - h. Jacks used in telephone exchanges and radio installations;
 - i. Devices for voice tuning and wave changing.
6. Most of the work in this department is done by hand. This department has about 12 small machines, made in the Bulgarian DMZ machine factory (Dürzhaven Mashinostroitelni Zavod), including hand presses, grinding machines, and abrasive machines.
7. The Department for the Assembly of Telephone Sets and Telephone Exchanges (Tsekh Za Montazh Na Telefoni I Telefoni Tsentrali) occupies more than half of the fourth floor of the central building. About 60 to 70 workers are employed in the assembly of telephone sets and automatic and non-automatic telephone exchanges. The only machines in this department are various measuring devices. The factory now turns out all compound parts for telephone sets and exchanges. Until early 1951 or 1952 it was capable of producing only smaller exchanges, because all the necessary parts had to be imported, mainly from East Germany. Since 1951 or 1952 the factory has been constructing automatic telephone exchanges for up to 2,000 subscribers, and even larger according to orders. In 1953 an order for an automatic exchange with 2,000 connections was executed for the town of Pleven. In July 1953 an exchange

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for 500 subscribers and another for 100 were built for the new industrial town of Rudozem (N 41-29, E 24-51) which has been under construction in southwest Bulgaria since 1945. In 1951 or 1952 a large exchange was supplied to the town of Dimitrovgrad.

8. The Military Production Department, which is graded secret, occupies approximately one-half of the fourth floor of the central building. All those employed here are regular army personnel wearing civilian clothes. They number about 80, mostly technicians and engineers, who are drawn partly from the Signal Unit (Svurzochni Polk) in Sofia and partly from the DS. In addition to effecting repairs of transmitters installed in Soviet T-34 tanks, this department produces the following:
 - a. Small portable transmitters in suitcase shape, with up to 30-watt capacity;
 - b. Transmitters in haversack shape, with up to 50-watt capacity;
 - c. Mine detectors;
 - d. "Dipol" aerials (for wave concentration);
 - e. Listening devices.
9. A considerable number of the spare parts for this department are imported from foreign countries, mainly the USSR, Czechoslovakia, East Germany, and Hungary, especially the following:
 - a. Special tubes;
 - b. Electrolytic condensers;
 - c. Ceramic rotating condensers;
 - d. Ceramic blocking condensers;
 - e. Crystals for microphones;
 - f. Quartz stabilizers, imported only from Czechoslovakia as they are regarded as best.
10. The Machines Department (Mashini Tsekh), which effects the cold processing of parts, occupies the entire ground floor of the central building. Machines in this department include:
 - a. Large and small lathes, some about four meters long, of Czech, Soviet, Swiss, and East German make; the East German lathes work at a special high speed; the Czech lathes are used for more precise jobs; all are automatic and a considerable number are of the "Revelver" type. Only the Bulgarian DMZ lathes are non-automatic;
 - b. A large number of milling machines, all of foreign make;
 - c. A large number of drilling machines;
 - d. Vertical and horizontal chipping machines;
 - e. Planing machines;

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- f. Three or four friction presses, some 15 to 20 ton powered and one with an approximate power of 35 tons;
 - g. Three or four 5-ton eccentric presses;
 - h. Grinding machines;
 - i. Automatic cutters;
11. The machines in this department, arranged in small groups according to the technical processes, have been used for only two to three years. The factory changes its mechanical equipment every two to three years; after they have served this time the machines are transferred to other factories where less precise work is required.
12. The Auxiliary Department (Spomagateleh Tsekh) comprises the following four sub-departments, all located on the first floor of the southern wing of the main building:
- a. The paint shop, with compressors and coloring devices;
 - b. The Energy Department (Energetishen Otdel), responsible for the electrical installations of the factory, including the generator placed in the cellar of the northern wing of the main building; this generator was installed in 1953 at the time a generator of the new thermic power station in the Nadezhda quarter of Sovia was sent to Czechoslovakia for repairs; the generator of the factory supplies only a fraction of the electricity demand; most of the current is still supplied from the outside, mainly from the power station in the Nadezhda quarter;
 - c. An engine repair shop;
 - d. The Press Department (Metalno-Pressov Otdel), responsible for the processing of parts; its equipment includes three or four 100-ton or above eccentric presses, two sheet metal cutting machines ("Popp-Scheren"), one automatic rolling machine, electrical ovens for various hardening processes of parts, and electrical ovens for "hot" processing of steel.
13. In addition to the above departments, the factory also has the following:
- a. A construction department with about 40 engineers, technicians, and craftsmen, located on the third floor of the southern wing of the main building;
 - b. A technical control department for the products of the factory;
 - c. An experimental laboratory;
 - d. A special department producing medical instruments, such as X-ray installations, Thermic electrical appliances, appliances for bloodless surgery, and appliances for ultra-violet rays.
14. The factory produces five types of radio sets: Republika I, Republika II, "504," Marek, and "Pioneer." The Republika I and Republika II sets were released by the Voroshilov factory for the first time in 1950. They have six tubes and can receive on three systems, short, medium and long waves. The model came from the former Radio-Prom radio factory at Gorna Banya which was liquidated after the establishment of the Voroshilov factory. No changes in construction have been made since then, except that the East Germany tubes formerly used were replaced by Soviet tubes in

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1951. Prior to this time Soviet tubes were not available in Bulgaria. The two Republika types are the most expensive ones and are considered luxury products in Bulgaria.
15. The "504" set has four tubes, but can receive also on three wave systems. The model dates from 1950 mass production started in 1951. The tubes are of East German manufacture. From the beginning of 1954 to May 1954 production was concentrated mainly on this type of radio set because it was destined for export to China. The output, with an 8-hour work day, is about 700 sets per month, but other types are also being produced at the same time to a certain extent.
 16. Marek is the latest model of the Voroshilov factory, mass production having started at the end of 1953. The set has five tubes and three wave systems. The tubes are products of various countries, mainly Hungary and Czechoslovakia.
 17. "Pioneer" is a popular radio. It has four tubes and only one wave system for medium wave. Mass production started in 1952, after the monetary reform.
 18. The Voroshilov factory turns out three types of loudspeakers. The daily output of the smallest loudspeakers (up to 0.3 watt) is about 200. The daily output of medium types (up to two watts) is about 80. Large loudspeakers (up to 25 watts) are turned out at the rate of about 50 per day.
 19. The number of workers and administrative personnel of the Voroshilov factory totals about 3,000. The majority of workers, with a large proportion of women, have had no vocational training. In order to remedy this situation, the factory established in 1952 a special vocational school (Zavodskaia Shkola), for the training of suitable cadres. To be admitted pupils must have completed seven grades of elementary school. About 50 pupils are admitted each year. The curriculum comprises two years.
 20. Three departments of the factory work three shifts per day: the Military Production Department, the Machines Department, and the Press Department. The other departments work one shift daily.
 21. The Director General (Glaven Direktor) is head of the Voroshilov factory. The Technical Manager, also called Chief Engineer, is responsible for machinery and production. He is also in charge of the Construction Department. The Chief Dispatcher (Glaven Dispecher) controls the smooth flow of production. There is a radio-telephone exchange at his disposal which enables him to communicate directly and quickly with all sections of the works, as well as with the Ministry of Electricity. The exchange is installed on the second floor of the northern wing. There is a Manager for Vocational Training (Nachalnik Na Tekhnicheskoe Obucheniye), a Manager for Technical Control (Nachalnik Na Teknichen Kontrol), a Manager for Security at Work (Nachalnik Na Tekhnicheskoe Bezopasnost), a Chief Accountant, and a Planning Manager. An important personality, with decisive influence, is the secretary of the Party cell.
 22. Most of the administrative offices are located on the second and third floors of the northern wing, the remainder in the second story of the southern wing. The first story of the northern wing houses, among other things, a store room for defective radios which are sold to staff members at reduced prices, a canteen, a buffet, and a room for charwomen.

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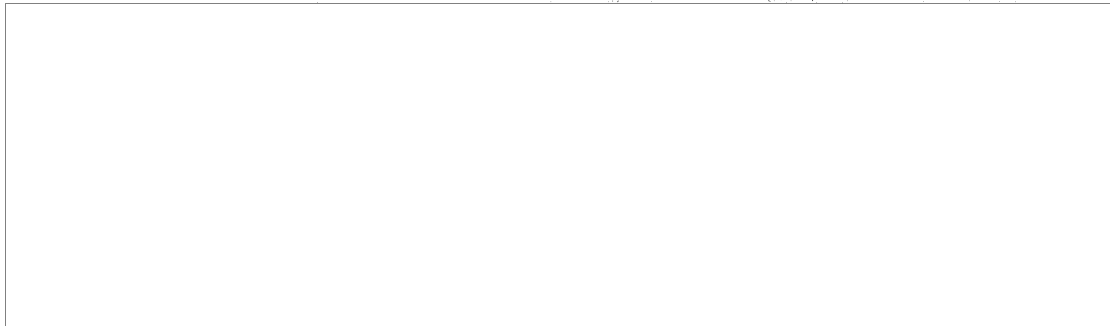
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29. The following is the legend for the sketch included as Appendix A on page 8.

1. Central part of the factory building, five stories
2. Southern wing, three stories
3. Northern wing, three stories
4. Guard house (DS personnel)
5. Foundry
6. Forge
7. Garage
8. Joiners' shop
9. Police guard post
- 10., 11, 12. Police Guard post
13. Elevator for materials and finished products
14. Check post for entrance permits
15. Entrance for the staff of the Construction Department
16. Entrance to the administrative offices
17. Entrance for the workers
- 18, 19, 20. Entrance to the main building
21. Entrance to the Guard house
- 22, 23. Entrance from the courtyard, main building
- 24, 25, 26. "Official Entrance" (for important visitors and organized groups)
27. Gate for vehicles

30. The following is a legend for the sketch included as Appendix B on page 9.

1. Center of Sofia
2. Voroshilov factory
3. Zakharna Fabrika (sugar factory), not in operation

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4. Field road
5. Sofia-Nadezhda highway
6. Apartment houses for employees of the Voroshilov factory
7. Workshops for arms repairs of the DS, with adjacent shooting ranges
8. Terminal of the No. 3 streetcar, also bus stop for employees of the Voroshilov factory
9. No. 3 streetcar line
10. Dirt track
11. Concrete bridge
12. Direction of the Zakharna Fabrika Railway Station (suburb)
13. Direction of the Poduene Railway Station (suburb)
14. Direction of the Nadezhda quarter of Sofia

Comment: For additional information on the Voroshilov factory

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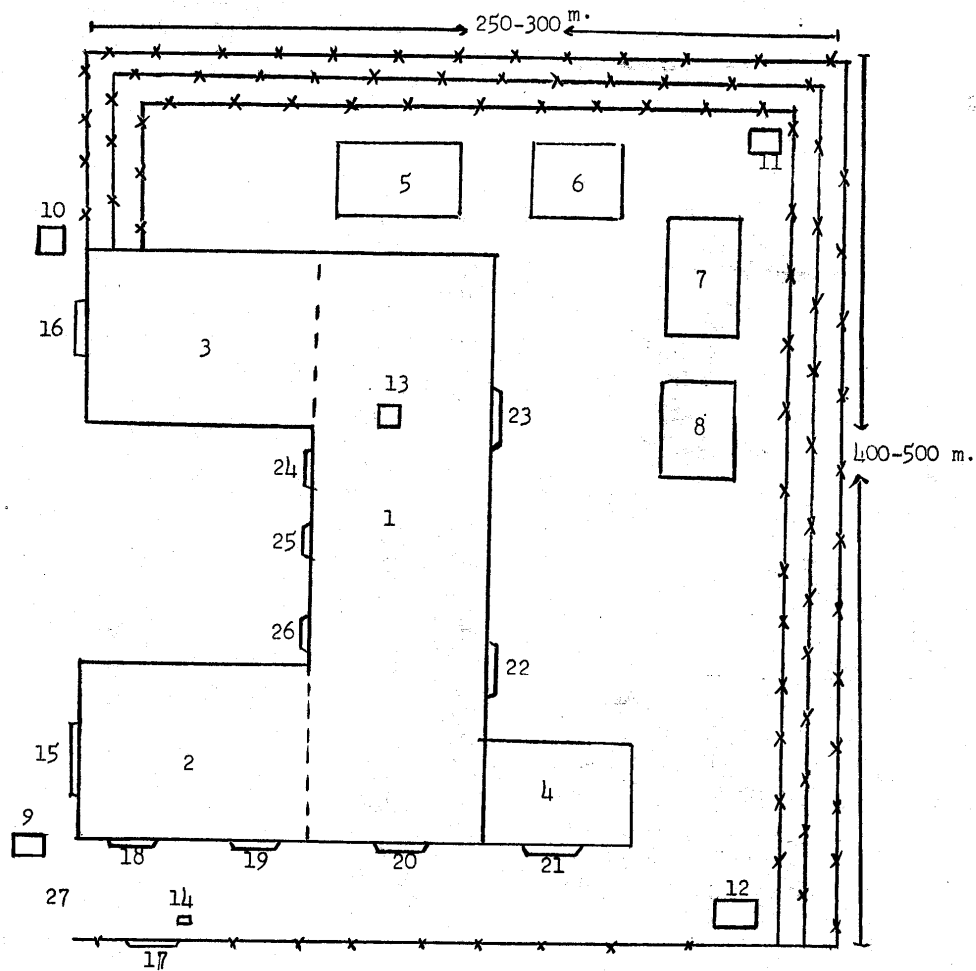
APPENDIX A

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Voroshilov Factory.



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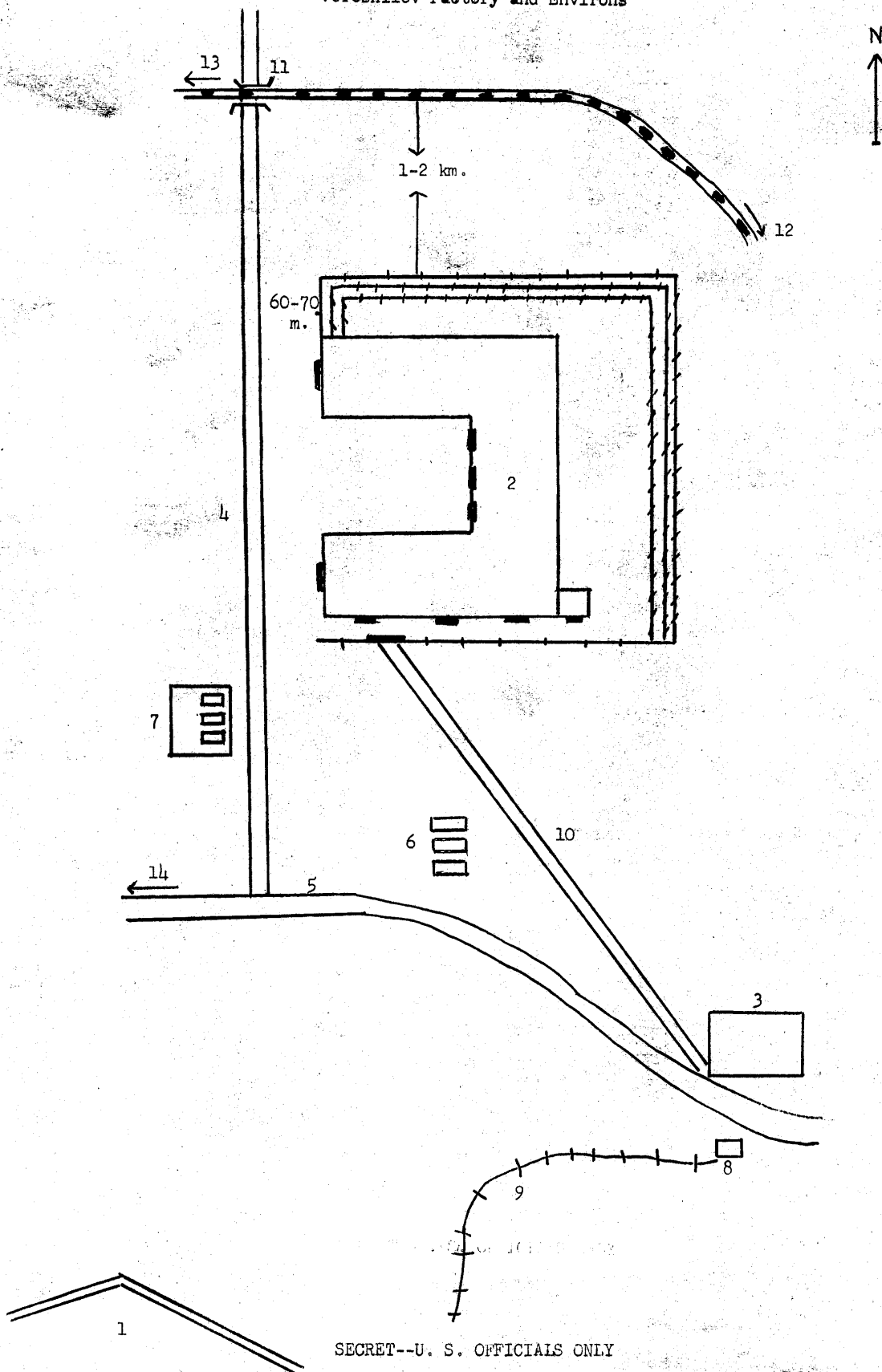
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APPENDIX B

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Voroshilov Factory and Environs



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